

Adolescents' perception of substance use and factors influencing its use: a qualitative study in Abu Dhabi

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Summary

Objective: The objective of this article is to gain a deeper understanding of the attitudes and perceptions of adolescents in the United Arab Emirates regarding substance and to identify factors that, in their view, may influence the risk of substance use and suggest possible interventions.

Design: This was a qualitative study that used a focus group approach.

Setting: The study was carried out in Abu Dhabi, United Arab Emirates.

Participants: Male and female teenagers aged 13–18 years residing in the emirate of Abu Dhabi.

Main outcome measures: Adolescents' awareness of substance use, patterns of use and associated harm; Adolescents' perceptions about the factors associated with substance use.

Results: Six focus groups were carried out, and a total of 41 adolescents (20 males and 21 females) participated. Data analysis identified three main themes: (1) adolescents' awareness of substance use and associated harm; (2) gender role and image and (3) perceived factors affecting substance use among adolescents. Knowledge of substances and related consequences of use varied between groups but was compatible with participants' age and school years. Factors that participants believed influenced substance use were classified into: (1) parent–adolescent relationship, (2) peer pressure, (3) substance accessibility, (4) religiosity and (5) others. Many factors were believed to increase the risk of substance use among adolescents such as peer pressure, inadequate knowledge of the harmful consequences of drug use, family-related factors (e.g. low monitoring and poor parent–adolescents relationship), affordability and availability of substances, boredom and affluence. On the other hand, religiosity was as a shield against substance use, especially alcohol. Other identified protective factors included carrying out schools- and communities-based educational campaigns, enhancing social workers' ability to raise awareness and detect early signs of addiction and implementing CCTV systems in schools.

Conclusions: The study was successful in exploring adolescents' awareness of substances and associated harm to health from their use. Also, it identifies a number of risk and protective factors based on the perceptions of a group

of adolescents residing in the United Arab Emirates. Such factors can guide the planning, designing and implementing of prevention programmes that focus on raising awareness about the harms of substance use. The study findings would suggest that multifactorial prevention programmes that address social norms, gender role and image, and incorporate drug policy, religion, family and school would be more effective and may have better protective outcomes.

Keywords

adolescents, substance use, tobacco, alcohol, drugs, perceptions

Introduction

Adolescence is a critical stage in the life-course and can be considered the most transformative period in the individual's life. The use of substances among adolescents is a public health concern and has been studied extensively in many parts of the world. Substance Abuse and Mental Health Services Administration's data for 2012 from the US showed that approximately 173,654 subjects aged above 12 years used tobacco products, 111,239 used marijuana and hashish and 78,034 used illicit drugs other than marijuana and hashish in their lifetime.¹ Several studies from other countries reported that teenagers were found to be involved in substance use at an early age, approximately between 11 and 14 years.^{2,3} Studies have identified many factors that increase the risk for substance use such as experimental curiosity, peer and family influence, lack of parental supervision and personality problems.^{4,5} On the other hand, factors that were found to prevent substance abuse included functional family communication, effective family socialisation and the ability to notice early warning signs for substance use.⁶ Religiosity has also been considered by many studies as an important protective factor against drug use, preventing individuals from using drugs even if they live in perilous environments.^{6,7}

A limited number of studies of adolescents' knowledge and attitudes towards substance use in the Arabian Gulf region explored the impact of peer pressure, curiosity, stress, excessive free time and affluence on substance abuse.^{8,9} Findings from these studies confirmed that substance use is a public health problem among teenagers and young adults in the region, despite tight antidrug law enforcement in addition to the cultural and religious restrictions. Thus, identifying risk and protective factors from the perceptions of adolescents can help setting up effective, culturally sensitive strategies for primary prevention of substance use.

In the present study, a qualitative approach was utilised and focus groups were conducted with male and female adolescents between 13 and 18 years of age focusing on: tobacco, alcohol and illicit drugs. The study had three overarching aims:

1. Assessing participants' awareness of: types of available substance in their community, route of administration, means of obtaining substance and consequences of their use on health.
2. Exploring their views on factors related to substance use among adolescents.
3. Recommending effective prevention strategies targeting adolescents in schools and communities.

Methodology

Qualitative methods have become increasingly used in healthcare research, especially when a complex detailed explanation of a phenomenon is needed and can only be obtained through hearing people's voices.¹⁰ Qualitative research is also effective in identifying subtle factors, such as social norms, gender roles, ethnicity and religion, whose role in the researched issues may not be apparent. It has been

also a method of choice in a number of studies that explored adolescents' attitude towards drugs.¹⁰ In this study, focus groups were chosen on the basis of being better suited to exploring the range, depth and complexity of teenagers' perspectives of drugs and drug use. Focus groups carried out separately among adolescents based on the age bands: (1) 13–14 years; (2) 15–16 years (3) 17–18 years to allow homogeneity between members of each group and help identify any difference in knowledge and attitude among different age groups. To abide by the UAE's sociocultural norms, single gender focus groups within each age band were arranged.

Abu Dhabi is the capital of the UAE (population eight million) with a large population, roughly 2.3 million.¹¹ It consists of three main regions, namely Abu Dhabi city (the federation capital), Eastern region and Western region.¹¹ To ensure geographical representation, samples across the Emirate of Abu Dhabi including the city of Abu Dhabi, Eastern (Al-Ain) and Western (Madinat Zayed) regions were included as highlighted in Table 1. Variation in socioeconomic backgrounds was achieved through enrolling adolescents from government and private schools and from different family backgrounds including divorced parent families, extended families and nuclear families, which is defined as a family group consisting of parents and their children. Snowballing technique was employed within each of Abu Dhabi's neighbourhoods to create a database of respondents covering all socioeconomic and demographic groups. This was initiated by visits to households coupled with a referral process conducted by local field recruiters. A screening and recruitment questionnaire guided the recruitment according to the study quota that included nationality, age, socioeconomic background, education, marital status and family composition. Ten respondents from each neighbourhood in Abu Dhabi were chosen

Table 1. Geographical distribution of the study samples.

Location	Gender	Age	School year	Number of participants
Abu Dhabi	Male	17–18	11 and 12	6
	Female	15–16	9 and 10	7
	Female	13–14	7 and 8	7
Al Ain	Male	15–16	9 and 10	6
	Female	17–18	11 and 12	7
Madinat Zayed	Male	13–14	7 and 8	8

and invited to participate in the focus group discussions.

Written consents were obtained from all participating adolescents and their parents, and anonymity and confidentiality were assured. All focus groups were audio recorded and transcribed verbatim. The study protocol was approved by the Research Ethics Committee at the National Rehabilitation Centre. The concept of the interview guide was structured to cover all the needed information on the adolescents' perceptions on substances, their use and factors influencing this behaviour. The interview guide listed open questions to explore the participants' experience of and opinions on illicit drugs, abuse, associated harm and any recommendations for prevention (refer to Appendix 1). All focus groups were conducted by a researcher in Arabic, the native language of the participants. Focus groups were carried out inside rented venues in each of the three Abu Dhabi districts.

Data analysis

Data analysis occurred simultaneously with data collection. Data from early focus groups coupled with the research objectives were used to create a preliminary framework within which emerging topics were identified and addressed in subsequent focus groups. Constant comparative data analysis enabled a clear understanding of the personal, social and cultural factors that impact substance abuse in adolescents living in the UAE. All audio-recorded interviews were transcribed verbatim and uploaded into QRS NVivo® (version 8.0) software that facilitated data arrangement and coding and allowed for searching of the interviews, re-sorting of material and consistent redefining of codes in order to support the analysis process. Tables and diagrams of categories and subcategories were also used to display relationships between identified categories.

Results

Six focus groups were carried out and a total of 41 adolescents (20 males and 21 females) participated. Data analysis identified three main themes: (1) adolescents' awareness of substances and associated harm; (2) gender role and image and (3) perceived factors affecting use of substances among adolescents.

Adolescents' awareness of substances and associated harm

Participants of all age groups showed different levels of awareness about different substances and methods

of use. However, tobacco smoking, types and factors facilitating its use appeared to dominate the discussion in most focus groups. Awareness of different types of substance available in the community including 'street names', routes of administration, methods of obtaining and health hazards of use were also addressed.

In general, accounts indicated that knowledge varied between groups but was compatible with participants' age and school years. Age wise differences occurred between participants regarding awareness of different types of substance, names of substances including 'street names', routes of administration and knowledge of the harmfulness associated with their use. For example, adolescents between 17 and 18 years of age were able to name different types of alcoholic beverages like vodka, whiskey and beer, while other age groups referred to alcohol as 'Khamr' – Arabic for liquor – throughout the interviews. Another noteworthy example was tobacco, as older groups displayed vast awareness of different types and commercial products.

A variation in the depth of knowledge and accuracy of information with regard to substance-associated harm was also apparent in participants' accounts. However, all focus groups agreed that all consequences from substance use were harmful to health and social life and were able to list a few consequential diseases and illnesses. For instance, some participants commented on the association between tobacco use and lung and throat cancer:

Smoking can cause lung and throat cancer, gum bleeding and some can go to hospital as because of [smoking]. (Male, 16 years)

Other participants believed that using 'midwakh', which is a pipe used to smoke tobacco posed higher risk than using tobacco products:

I believe that midwakh is the most harmful of all tobacco types. It can cause addiction. I think one puff of midwakh is like smoking a packet of cigarettes. (Female, 15 years)

A few of the participants pointed out the relaxing effect associated with the use of alcohol:

People who drink alcohol lose control of themselves, but it has a relaxing effect. (Male, 17 years)

In terms of drugs, remarkably, males across all ages had higher awareness of the 'street names' in the UAE such as: 'Lexus', 'Umm-Hilyel' and 'El-Boudra'. Besides that, generally all participants had

very limited knowledge of the health risk associated with drug use and expressed the harm in one term – ‘dangerous’.

Using [El-Boudra] is very dangerous, I heard that some people inject it and died. (Male, 16 years)

Accounts indicated a number of information sources that participants may have used to construct their knowledge about illicit substances, types, routes of administration and associated harm. These different channels of information included friends, family, the media, surrounding environment and peers at schools. Noticeably, participants from the Western region indicated that their first encounter with apparently hashish was through watching workers in their families’ farm rolling and smoking it:

The first time I saw what I believe is [hashish] in my life was when I saw the [farm worker] rolling a hashish cigarette and smoking it. (Male, 13 years)

Others stated that movies were a rich information source about drugs and route of administration:

I never saw alcohol in my life, except in movies where some people drink different types of alcohol in parties. (Female, 14 years)

Gender role and image

The role of gender and gender-based expectations were salient in participants’ accounts as they talked about their perceptions of illicit drugs and reasons for engaging in substance abuse behaviour. For example, smoking tobacco was perceived by most female participants as masculine behaviour restricted to males only and believed that females who smoked were ‘boyat’ – Arabic for tomboys – who were trying to look and behave like males:

Boyat females try to copy males in many behaviours like smoking cigarettes; especially if their fathers or brothers smoke. They usually smoke in groups in the school toilets and they believe that smoking complement their [boyish] style. (Female, 13 years)

Culture was also believed to be responsible for ascribing certain risk behaviours more to one gender than the other. For instance, some females believed that males were at a higher risk of misusing drugs and addiction because they enjoyed more freedom, had more pocket money and social sympathy. In their perception, females had to

follow the rules of their families, society and culture by not engaging in dishonouring behaviour such as substance abuse:

Females always think about their own and their family’s reputation before doing anything, while males can do whatever they want because the society always forgive men. (Female, 14 years)

Tobacco is the least dangerous [substance] and its use is accepted in society especially among Men. (Male, 14 years)

The accounts of some male participants agreed with this view and others stated that smoking tobacco would probably be the most attainable substance of abuse for females if they were given the chance to smoke:

Smoking would be common among females if they have more freedom. Some females have more freedom when they don’t live with their parents and don’t have brothers to monitor them. (Male, 13 years)

The influence of gender identity and image on the choice of tobacco products was also noted during focus groups. For example, some female participants cited ‘shisha’ as the most popular and socially acceptable tobacco product to be consumed by women in the region:

I have some friends who smoke shisha in coffee shops and they prefer using it than other types.

I believe that shisha is preferable among females. It’s fashionable to smoke shisha these days. (Female, 15 years)

The impact of substance use on image was also prevalent in some accounts from the male participants who cited ‘midwakh’, which is a pipe used for smoking tobacco, as the best choice, believing that it made them look attractive and mature:

I think males who use midwakh look mature and attractive; one can use it to man-up. (Male, 14 years)

Furthermore, the use of analgesics, especially ‘paracetamol’ mixed with caffeinated/carbonated drinks, was commonly practised and preferred by females:

I have friends who mix Panadol with energy drinks. They feel relaxed from using this [magic drug]. (Female, 16 years)

Many females mix [Red Bull] with Panadol to stay awake. It’s very simple to prepare and [Red Bull] is available in all the groceries. (Female, 14 years)

Table 2. Factors that affect substance use from the perceptions of adolescents.

Risk factors	Protective factors
<p>Family related:</p> <ul style="list-style-type: none"> • Poor parental monitoring • Family disturbance (conflicts) • Poor parent–adolescents relationship • Mixed marriage • Excess pocket money <p>Peer and individual:</p> <ul style="list-style-type: none"> • Peer in trouble or using drugs • Boredom • False impression ‘looks attractive’; especially with the use of tobacco • Lack of awareness of risks associated with substance use <p>Community and school related:</p> <ul style="list-style-type: none"> • Availability of substances • Lack of educational campaigns 	<p>Family related:</p> <ul style="list-style-type: none"> • Strengthen the relationship between adolescents and their parents • Increase parental monitoring of adolescents • Provide calculated pocket money based on the adolescent’s needs • Raise awareness by parents on substance use and harm associated with them <p>Peer and individual related:</p> <ul style="list-style-type: none"> • Being involved with healthy peers • Being aware of the health hazards associated with substance use <p>Community and school related:</p> <ul style="list-style-type: none"> • Place CCTV in the schools • Carry out regular checks on the student’s belongings (e.g. bags and books) • Involve psychologist in the school • Activate the role of social workers in preventing substance use • Separate the primary levels into two school settings based on the age band to avoid mixing young with older ages • Utilize ‘Friday prayers’ to raise awareness of drugs use and harm associated with them • Activate the role of social police in raising awareness of drug use among students and families and neighbourhood monitoring • Increase the control on shops selling tobacco; especially for those aged < 18 years • Increase the number of social activities (e.g. national competitions and games) • Increase the prices of tobacco products • Carry out blood test for adolescents who transfer from one school to another <p>Religiosity</p>

Factors affecting substance use among adolescents

An account of participants’ responses indicated a number of risk and protective factors that they believe could influence substance use among adolescents (see Table 2). These factors are classified into: (1) parent–adolescent relationship, (2) peer pressure, (3) drug accessibility, (4) religiosity and (5) others.

Parent–adolescent relationship. Most of the participants felt that adolescents who used substances had conflicts and poor relationships with their parents. Thus, they believed that strengthening parent–adolescent relationships could protect adolescents from substance use:

Parents can protect us from drugs by love and support and advice and care. Having supporting parents is very important. (Male, 13 years)

Other participants called for parents to be more supportive, embracing and not punishing their

children for their unwanted behaviours. They believed that this would encourage children to open up to their parents about their issues including drug use which will facilitate better parental monitoring:

Our parents need to spend more time with us so that we can discuss with them our needs and worries. They should not punish us if they find out we were doing something wrong they should listen and understand. (Female, 15 years)

Some participants, on the other hand, indicated the need for high level of parental monitoring of adolescents as a protective measure against substance abuse:

Parents should have a close relationship with their children and get involved with them in their activities and at the same time they should keep an eye on their children to know what they’ve been up to and who their friends are and what they buy and what people give them. (Male, 16 years)

Peer pressure. Having friends who use substances was seen by the study participants as a major risk factor for experimenting or using substances. They also believed that substance use occurred during friends' gatherings and in groups:

Normally, [adolescents] take drugs in groups. One [of them] will keep an eye out for the police to distract them, whilst the rest enjoy the experience. (Male, 15 years)

On the contrary, having friends who did not engage in risky behaviours was viewed as a protective factor against substance abuse:

Having friends who don't use substance can protect [adolescents] from drugs. With them you will not think of doing bad things you will do what they will do health and good things. (Male, 15 years)

Substance accessibility. Almost all participants of different age groups stated that tobacco products were widely available and affordable in their communities, where they could be easily purchased with their pocket money:

You can get cigarettes easily like from shops and smoking centres. Sometimes, the salesman doesn't offer [cigarettes] to teenagers because they're too young to smoke. But then an older looking friend or brother can get them for you. (Male, 13 years)

Nearly all the participants agreed that schools are the main source for initiating the use of tobacco and some types of drugs. Some female participants also stated that drugs were sometimes obtained through users' boyfriends or offered to beginner users free of charge:

Older females in the same school get the drugs for free but only to females using it for the first time, then [on the second time] they sell it to them. (Female, 16 years)

Some females get drugs from their boyfriends and pass them around the school. (Female, 17 years)

Some male participants, on the other hand, stated that obtaining drugs could be achieved through either friends, specific pharmacies, or in parties and night clubs where they were usually offered for free. School allowances were repeatedly referred by most participants as sufficient to purchase illicit drugs regardless of type or quantity:

[Teenagers] use their school allowances to buy drugs from dealers in schools or the pharmacy. (Male, 14 years)

They [drugs] are distributed in parties for free [...] someone will put it in your drink or food without you noticing. (Female, 14 years)

Others stated the measures taken if extra money was needed and school allowances were not enough to purchase drugs, such as asking parents for more money, stealing, borrowing money from friends, selling personal belongings and valuables or exchanging money for sex:

If the drug is too expensive, then all the friends will share their money to buy it. (Male, 15 years)

When pocket money is not enough some will start selling their mobiles or bicycles, some sell their pets to get the money. Sometimes sex can be exchanged for money. (Male, 18 years)

Religiosity. Religiosity in this study was assessed through exploring participants' perception of the role of religious beliefs and practices in preventing substance use. This theme was also salient as participants talked about alcohol mainly amongst female participants. In their perceptions, the religious prohibition of alcohol indicated its harmful effect on health, family and society:

Religion [Islam] prohibits drinking [alcohol] because it destroys the body and you lose control. God will not listen to your prayers for 40 nights if you drink [alcohol]. (Male, 17 years)

A mixture of fear and taboo was invoked during the discussions when participants explained reasons for not using alcohol. In that sense, religion was viewed as a strong protective factor:

If children are raised based on the Islamic teachings, they will know that God is watching them all the time so they will think about their behaviours every day to avoid bad behaviours. (Female, 16 years)

Religiosity in the form of religious beliefs and practices was also viewed as a strong resilience and resistance factor against substance use:

Praying helps people relax. It takes away any negative thinking. Even if someone thinks of using drugs, praying would protect him against drugs. (Male, 14 years)

The role of schools. The role of school as a factor impacting substance abuse in teenagers emerged as participants talked about means of enhancing

prevention (see Table 2). For example, participants called for installing closed circuit television (CCTV) systems in the school toilets:

In the school, it is important to have cameras in toilets and classrooms and corridors. Mainly in toilets because students tend to smoke [cigarettes] in the school toilets. (Male, 14 years)

They also suggested carrying out regular inspections of students' school bags:

Some teachers do regular inspection and check students' bags. It's really important to have a look inside the bag because sometimes students hide cigarettes and pills there. (Female, 15 years)

Others emphasised the importance of conducting awareness campaigns within their schools. Carrying out blood tests for students transferring from one school to another was also believed to reduce the prevalence of substance use among adolescents in the school settings. A number of male participants pointed out the importance of separating young males in the primary school from older ones to eliminate the risk of substance abuse:

Young students meet older ones in the school hall during break. Older students sometimes teach some younger students how to smoke. Sometimes, they sell drugs to younger students. (Male, 16 years)

A few participants highlighted the potential role of the school social workers in assessing and identifying early signs of substance use. They also believed that school social workers have a role in raising awareness of drugs and related harm.

Teachers use the help of social workers who usually talk to us about the harms of drugs. (Female, 15 years)
Social workers can arrange some useful education programs to raise awareness of drugs. (Female, 16 years)

Using the help of psychologists in schools to help tackle students' drug problems was also suggested by some of the participants in the study:

Last year my school had a psychologist come in twice a week to help students who had problems like using drugs. She [the psychologist] helped students deal with their problems better. (Female, 17 years)

The role of community. The role of community in preventing substance use in teenagers was highlighted by

most of the study participants. Some believed that social police could participate in raising awareness of substance use or increasing the monitoring of shops selling tobacco:

There should be a strict policy that closes shops that sell [tobacco] to school kids. A salesman should not sell any cigarettes without seeing the ID to double check age. (Male, 16 years)

Many participants from the Western region indicated that lack of community-based activities targeting teenagers might increase the chances of getting involved in risky behaviours such as substance use:

We need some activities in the community to keep us busy like play grounds and sport competitions or summer camps. (Male, 14 years)

If the community offers attractive activities to us then we will not have time to think about doing drugs. (Male, 15 years)

Discussion

This qualitative study is the first one from the UAE to explore adolescents' awareness, beliefs and perceptions regarding substances including tobacco, alcohol and drugs and factors associated with their use. Findings from this study highlighted important issues discussed below.

Awareness and perceptions regarding substance use

The varying level of awareness across all age groups of the study participants of different substances and consequences of their use was consistent with participants' age and school year and could be attributed to participants' exposure to more information as they grow older in age and advance in their school years. Similar findings were reported in other quantitative studies that were carried out in the UAE and Bahrain.^{10,12} Inadequate knowledge of the health hazards associated with the use of substances, especially drugs in this study, is worrying and could contribute to young people's substance abuse. Similarly, findings from the Global Youth Tobacco Survey carried out in the UAE estimated that one-third of current smokers did not think that smoking was harmful to their health compared to only one-tenth of non-smokers.¹⁰ Another worrying finding among some of the study participants was the lack of awareness of the risk associated with alcohol and drug use while being aware of the related induced

relaxation, which could trigger experimentation or the use of these substances.

The study findings also indicated that most participants acquired their information from multiple sources but rarely referred to schools as a source of structured information on drugs or the harms of using them which could explain why most participants called for carrying out school-led awareness programmes and specialised education classes. This finding confirms the importance of incorporating drug education into schools' curricula. There is a growing body of evidence confirming the effectiveness of school-based substance use prevention programmes in raising awareness about the harms of illicit drugs and in reducing the prevalence of substance abuse among students.¹² However, ineffective implementation of these evidence-based programmes may hinder successful outcome.¹³ In Bahrain, for example, it was reported that despite the presence of information about hazards of smoking in the preparatory and secondary school curriculum, only 45.4% of the students were actually taught about the harmful effects of smoking, and 37.7% were aware of the risk factors of smoking.¹⁴ This might be due to either improper design of the school curriculum information or improper method of information delivery among adults. Thus, the proper selection and implementation of school prevention programmes are crucial to enhance protection and reduce prevalence of substance abuse amongst adolescents. Additionally, other studies have shown that increasing awareness about the harms of tobacco smoking alone was not sufficient to change smoking behaviour or facilitate smoke cessation; therefore, the incorporation of other strategies was recommended.^{15,16} Increasing the knowledge and awareness of adolescents about substances should be accompanied by other strategies such as family and community-based programmes to guarantee better response and optimise education and persuasion.

Interestingly, hashish use among Asian workers, especially farmers in the Western region, was found to be a channel for adolescents' exposure to it and its route of administration. However, this statement might be questionable because adolescents were doubtful about the appearance of hashish, hence farmers might roll tobacco not hashish and smoke it, and adolescents might be misled by the practice of rolling tobacco and smoking it. Carrying out regular screening for substance use among workers in the farms is suggested.

The role of gender as a factor influencing substance use was apparent in the accounts of some of the study participants mainly in cigarette smoking, the choice of tobacco products and predicting risk

behaviour. Associating masculinity to some substance use behaviour like smoking and drug addiction was cited by some female participants. Preserving honour and family name was a limiting factor to substance abuse amongst females while males, on the other hand, viewed smoking as a way of 'manning up' and asserting manhood. Some females in the study indicated that using 'shisha' water-pipe was preferable amongst females because it was a socially accepted behaviour for women in their communities. Some males in the study, on the other hand, mentioned 'midwakh' as the preferred choice for men. The link between gender role and substance abuse has been explored intensively in some parts of the world.^{17,18} Previous research has shown that people use masculine attributes in both genders to predict substance abuse behaviour while associating femininity with drug refusal behaviours.^{17,18} Smoking in particular was found to be one of the most widely perceived masculine risk behaviour because of the relevant smoking pattern, personality characteristics of smokers and the assertion of social norms.^{17,18} Amin et al. attributed the widespread use of shisha among adolescents in the Arab countries to several reasons such as the attention given to address the risks associated with smoking cigarettes that encouraged adolescents to substitute cigarettes with other less dangerous alternatives from the tobacco family. Another reason was the popularity of shisha smoking in the Arab countries as a socializing and relaxing activity in a group of friends or family members.¹⁹

Smoking shisha among females is also believed to be a less stigmatised behaviour when compared to cigarette smoking in addition to the inadequate awareness of its health hazards.^{19,20} These findings call for developing health education programmes that address gender's role in risk behaviour and focus on increasing knowledge of the harms associated with using different types of tobacco, reshaping attitudes and correcting misperceptions related to the commonly used tobacco products among female and male adolescents in the UAE.

Another interesting finding is the preference of females to mix 'Paracetamol' with caffeinated/carbonated drinks to have the desired relaxation. Similar practice of combining caffeine with other pharmaceuticals has been reported elsewhere resulting in hospital admissions.²¹ Awareness campaigns should address the risk associated from combining medications such as analgesics with caffeinated/carbonated drinks, the appropriate use of caffeinated beverages, their potential benefits and side effects, and correct wrong perceptions and practices among adolescents regarding the caffeinated drinks. More research should identify the prevalence of caffeinated drinks

consumption among adolescents, associated risks and reasons for combining pharmaceuticals with energy drinks in the UAE.

Factors influencing adolescents' substance abuse

Participants' accounts in this study indicated that adolescents' engagement in substance use was influenced by a complex array of factors related to peer pressure, family, accessibility, religiosity, school and community.

The impact of peer pressure on teenagers' behaviour is well documented in literature and is considered as one of the most influential factors in substance abuse.^{22–24} Other studies found that the power of peers in enforcing the behaviour of substance abuse was greater than family's protective role.²⁵ Literature has also shown that drug users seek the approval of their peers and consider it as a symbol of group unity.^{25,26} Findings reported in this study emphasised the role peers play in either increasing or decreasing substance use among teenagers. Perhaps more importantly, we found that peers were considered to be the access channel for obtaining drugs. These accounts are comparable to the findings from another study that examined the role of the social network of peers in drug access and drug use behaviour.²⁷ Thus, it is highly important to understand the friendship dynamic among adolescents and to address peer influence in prevention programmes through providing teenagers with effective tools and skills to withstand pressure.

Another important key finding from this study was the important role parents can play in substance abuse prevention. Strengthening family ties, communication, support and understanding were viewed as key protective factors and believed to encourage parent–teenager discussions and disclosure of issues including substance abuse. There is a growing body of evidence that illustrates the role of parents in preventing risky behaviours.^{28–30} Evidence also indicates the effectiveness of family-targeted interventions and integrating a more family-focused programmes that provide tools on better parenting skills and better prevention outcomes.^{28,31} Thus, a national prevention strategy in the UAE might benefit from incorporating family-oriented prevention programmes and interventions.

Boredom, unutilised free time, and lack of community-based activities were other substance use risk factors reported by a number of the study participants residing in the Western region. A strong association between boredom and increasing the risk of substance and tobacco use was also reported

in some studies.^{32,33} Thus, communities should attract and encourage teenagers to participate in multiple community-based activities, special life skills training programmes and workshops.

The availability and affordability of substances, specifically tobacco product, were believed to be strong risk factors for substance use among adolescents in the UAE. Equally, affordability of substances, especially the licit ones, has been cited in many studies as a risk factor to substance use among adolescents.^{9,24} A proper implementation of laws that restrict selling tobacco products to teenagers and penalising shops which do not adhere to the law are essential preventive tools to reduce the under-age consumption of tobacco.

Another protective factor identified from this study was religion. Almost all the participants emphasised the role of religious beliefs and practices in protecting against risky behaviours including substance abuse. This was also confirmed by many studies that linked lower occurrence of drug-related clinical problems among adolescents to high value on religious devotion.^{6,7,9} The impact of religious beliefs among participants in this study was evident especially when discussing alcohol because of its clear prohibition in Islam. Thus, utilising the role of religion in prevention and raising awareness of the risks of substance abuse would be a useful strategy against substance use among adolescents.

Multiple health-risk behaviours take place in schools such as smoking and drug use, suggesting the need for new and effective preventive strategies. Participants suggested different approaches to reduce the burden of substance use among students in the schools including engaging social workers in raising awareness, and hosting a psychologist to assess and support students' needs, identify those at high risk of substance use and refer those showing early signs of addictions to specialised centres when needed. Also, placing CCTVs in school toilets, classes and corridors was believed to reduce the occurrence of substance use behaviour in the schools. School toilets were mentioned frequently by the participants as 'hot-spots' for substance use. Similarly, many studies associated certain risk behaviours to the unsupervised areas in the schools such as hallways, staircases, toilets and changing rooms.^{34–36} Some studies referred the use of substances in these places to the teachers' focussing merely on the classroom and not on the wider school environment, and inadequate support system in these areas; therefore, CCTV and other alternative surveillance mechanisms were used.³⁶ In the UK for instance, CCTVs are used commonly in educational institutes – roughly 85% of all UK secondary schools have CCTV systems in operation.³⁷ The main aims

when using CCTV are to help prevent risky behaviours such as assaults and substance use and enhance security. However, to make the use of CCTV specific and purposeful, the comments and opinions of the school's leaders, teachers, students and their parents should be counted. Prior to installing CCTV in the schools, many factors should be considered including legal requirements and cultural issues such as student's privacy in the UAE.

Limitations

As with any qualitative research, using focus groups as a tool to explore adolescents' perception on substances and their use has its documented limitations that are also acknowledged in this study. Participants within one focus group might have felt the pressure to give similar accounts and opinions to their peers; however, the lively discussion and spontaneity of responses indicated that such limitation waned with time and as the interview progressed. All the study participants were from Abu Dhabi only. Adolescents from other parts of the UAE might have different experiences and perceptions that are influenced by their specific settings. However, generalisability of findings was not the aim of this study but rather to explore the perceptions of a small group of adolescents about substances and develop a better understanding of their needs. Nevertheless, it would be interesting if future studies could identify factors affecting substance use over a larger representative sample of the UAE or in other neighbouring countries. Additionally, exploring and understanding the perceptions of parents on adolescence, and factors affecting substance use among their children, would help in designing a more comprehensive educational programme.

In this study, we did not collect the socioeconomic status of participants' families, which could affect the views and beliefs of participants. Therefore, we suggest future research to explore if there is any association between these variables.

Conclusion

The study was successful in exploring adolescents' awareness of substances and associated harm to health from their use. Also, it identifies a number of risk and protective factors based on the perceptions of a group of adolescents residing in the UAE. Such factors can guide the planning, designing and implementing of prevention programmes that focus on raising awareness about the harms of substance use. The study findings would suggest that multifactorial prevention programmes that address social norms, gender role and image, and incorporate drug policy,

religion, family and school would be more effective and would have better protective outcomes.

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Appendix 1. The focus group schedule

Time	Introduction
5 min	<ul style="list-style-type: none"> • Introduce self to respondent and main aim of the research • No right and wrong answers, everyone's participation is important • Explanation of recording and confidentiality • Time required for completing the interview • Informed consent
Discussion flow	
30 min	Daily routine and family details
10 min	Lifestyle and trends related to youth
30 min	Perceptions about substance use and patterns of use among adolescents
15 min	Prevention measures for substance use among adolescents
15 min	Risk factors for substance use among adolescents
5 min	Thanking the participants for taking part – end